

REMARKS

The present Amendment is submitted in response to the Office Action mailed on June 10, 2011.

The non-final Office Action withdraws claim 10 under 37 CFR 1.142(b) as (constructively) drawn to nonelected Species B, rejects claims 1 and 3-12 under §112, second paragraph, rejects claims 1, 3, 5, 6, 11 and 12 under §103(a) over Harting in view of US Patent No. 2,725,123 to Reuland (Reuland) or US Patent No. 3,096,863 to Shefke (Shefke) and rejects claims 7-9 under §103(a) over Harting in view of Reuland or Shefke, and further in view of US Patent No. 5,080,214 to Fossum (Fossum).

In response to the rejection of claims 1 and 3-12 under §112, second paragraph, applicants amend claims 1, 7, 8 and 9, and cancel claim 3, as shown above. Independent claim 1 (and independent claim 22, for that matter) now defines that the blocking device (30), embodied as a separate, independent structural unit (31), comprises a barrier housing (52) which is axially press fitted to mount the separate independent structural unit (31) onto and within the housing (16). Claims 7-9 are amended substantially in accordance with the Examiner's comments. In view of the claims amendments, applicants respectfully request withdrawal of the §112, second paragraph rejections.

Rejections under §103

Claim 1

To support the rejection of claim 1 under §103(a), the Examiner asserts that Harting discloses a blocking device having a first blocking element [rotatable part 1] on shaft [2] and a second blocking element [cam disk 3] displaceable relative to the first blocking element [rotatable part 1] by means of electromagnet [coil body 5, 6, 7] and restoring element [leaf spring 4], wherein the blocking elements each have radially extending indentations and radially extending raised areas, which mesh with one another in an axial direction in a form-locking fashion to block the rotary motion of the shaft in the blocking state [Fig. 3].

The Examiner further asserts that Harting does not disclose a separate, independent structural unit for mounting onto the housing and shaft, that Reuland and Shefke each disclose a magnetic brake including a barrier housing (Reuland, 38; Shefke, 17), which operate to hold braking or blocking devices as separate independent structural units that are mounted as units onto the respective housings on the one hand and onto the shafts on the other hand, and that it would have been obvious to modify Harting by either Reuland or Shefke as a simple engineering design choice.

Applicants respectfully disagree. Shefke is distinguishable in that circular plate or disc 17 is connected to shaft 16, and therefore appears to more likely equivalent to a blocking member than a barrier housing or stop disc, as claimed.

Reuland discloses a magnetic brake A for use with a motor B in a housing 1 with shaft 4 extending through housing ends 5, 6 (Fig. 1). The brake B comprises cylindrical housing 9, which attaches to wall 5 of motor A in housing 1. Backing plate 38 is used to bolt the braking unit A onto the housing 1. An annular core 37 of electromagnet structure 17 is welded to the backing plate 38.

Reuland does not teach or suggest the use of an independent structural unit mounted onto and within the housing.

In order to better highlight these differences between the invention as claimed, and Harting and Reuland, or Harting and Shefke, applicants amend independent claim 1 to include the subject matter of claims 3 and 4, now cancelled.

Independent claim 1 in pertinent part now defines that the blocking device (30) is embodied as a separate, independent structural unit (31) comprising a barrier housing (52), where the barrier housing (52) is axially press fitted to mount the separate independent structural unit (31) onto and within the housing (16), and that the first blocking element (32) is embodied as a rotatable disk with radial moldings comprising an inner toothing (68) configured to engage corresponding counterpart moldings (70) comprising outer toothing (70) of a slaving means (66) located on the shaft (14) in a manner fixed against relative rotation, which slaving means (66) is thrust into the blocking element (32) to effect installation.

A blocking device with these features, e.g., a first rotatable blocking element (32), is not taught or suggested by any of Harting, Reuland or Shefke, whether taken alone or in combination. Applicants respectfully assert that claims 1, 5, 6, 11 and 12 are patentable under §103(a) over Harting in view of Reuland or Harting in view of Shefke and request withdrawal of the rejections, therefore.

Claim 22

To support the rejection of independent claim 22, the Examiner asserts that while Harting modified by either Reuland or Shefke fails to disclose the toothing areas, axial extensions, stop disk and hook for clamping, that Pfann teaches toothing areas (Fig. 4) and axial extensions (Fig. 5), where an axial extension of the top portion of element 20 is braced against the bottom surface of stop disk 6 that is clamped by hook portion 29, concluding that it would have been obvious for the various reasons.

Applicants respectfully disagree. That is, applicants do not see that Pfann meets the limitations of the last "wherein" clause of claim 22. For example, Pfann's stop disk (brake rotor) 20 is not equivalent to a barrier housing configured as a stop disk forming at least one axial stop for a first blocking element (Applicants' Figs. 2 and 3).

Perhaps more importantly, applicants do not see how Harting's blocking device could be modified to include these Pfann features, or why the skilled artisan would have considered first modifying Harting in view of Reuland, and

then further modifying to include the various elements as claimed. Again, Harting's shaft [2] is fixed with its first blocking element [rotatable part 1].

In an effort to make these distinguishing features more clear, however, and to better distinguish Harting in view of Reuland or Shefke further in view of Pfann, applicants amend claim 22 as shown above.

In pertinent part, claim 22 (like claim 1) is amended to define the blocking device (30) as a separate, independent structural unit (31) comprising a barrier housing (52) axially press fitted to mount the structural unit (31) onto and within the housing (16) on the one hand and the shaft (14) is passed through a central opening (64) fixing the blocking device (30) thereto on the other hand and that the barrier housing (52) is configured as a stop disk (60) forming forms at least one axial stop (74) for the first, rotatable blocking element (32), which first, rotatable blocking element (32) has axial extensions (62, 61, 63) that are braced on the at least one axial stop (60, 74) of the barrier housing (52) to mesh in the axial direction with one another by form-locking.

A blocking device with these features, e.g., with a first rotatable blocking element (32) comprising axial extensions (61, 62), is not taught or suggested by any of Harting, Reuland, Shefke or Pfann, whether taken alone or in combination. Applicants respectfully assert that claims 4 and 22 are patentable under §103(a) over the references in combination and request withdrawal of the rejections, therefore.

Claims 7-9

To support the rejection of claims 7-9, the Examiner asserts that Fossum teaches (Figs. 1, 2; 22) an axial extension comprising a top portion of element 22 braced against stop disk 16 clamped by hook portion 22a, and that it would have been obvious to modify Harting in view of Reuland, or Harting in view of Shefke to operate with Fossum's axial extension, etc., as an engineering design choice to strengthen the connection between the blocking element, shaft and housing and to enable replacement of each element individually if damaged rather than replacing the entire blocking device.

Applicants respectfully disagree that it would have been obvious to modify Harting's blocking device including first [1] and second blocking elements [cam disk 3] to include an axial extension comprising a top portion of an element (such as Fossum's sleeve 22) braced against cam disk [3] and clamped by a hook portion (such as Fossum's annular rib 22a). Harting's Fig. 3 shows an expanded view of the blocking device, and there does not appear to be any way to modify same to include the Fossum structure without significant changes, which would change Harting's principles of operation as intended.

For that matter, and with all due respect, such modification cannot be merely an engineering design choice, as applicants, when viewing Harting's Fig. 3, cannot see how Harting could be amended as taught by Fossum and no explanation has been provided.

It follows that it would not have been obvious to modify Harting in view of Reuland, or Harting in view of Shefke, as taught by Fossum, and applicants respectfully request withdrawal of the rejection of claims 7-9 under §103(a), therefore.

It follows that the application as amended is in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'M. Striker', with a long horizontal flourish extending to the right.

Michael J. Striker
Attorney for Applicants
Reg. No. 27,233
103 East Neck Road
Huntington, New York 11743
631 549 4700